Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method comprising:

generating simulation signals from a design simulation;

applying a transaction rule to recognize a first set of the simulation signals as a transaction; ~~and~~

applying an atomic rule to recognize a second set of the simulation signals;

applying a non-atomic rule to recognize a first set of atomic rules; and

executing an action associated with the transaction rule.

2. (Original) The method according to claim 1 further comprising:

successively defining the transaction rule using other rules so that the transaction rule is defined by the simulation signals.

3. (Original) The method according to claim 2 further comprising:

executing an action associated with each rule to perform user-defined functions.

4. (Currently Amended) The method according to claim 1 further comprising:

~~applying an atomic rule to recognize a second set of the simulation signals;~~

~~applying a non-atomic rule to recognize a first set of atomic rules; and~~

applying the transaction rule to recognize a second set of atomic rules and a set of

non-atomic rules as the transaction corresponding to the transaction rule.

5. (Currently Amended) The method according to claim 1 further comprising:

placing in a data structure one or more symbols corresponding to an atomic rule

associated with the simulation signals;

replacing in the data structure the one or more symbols corresponding to atomic

rules with one or more symbols corresponding to a non-atomic rule; and

replacing the one or more symbols corresponding to non-atomic rules and the one

or more symbols corresponding to atomic rules with one or more symbols corresponding

to the transaction rule.

6. (Original) The method according to claim 1 further comprising:

producing an output which includes printing information about the transaction.

7. (Previously Amended) A method comprising:

defining a transaction rule, which is associated with a first action, by non-atomic

rules, each of which is associated with a second action and is defined by one or more

atomic rules, wherein each atomic rule is associated with a third action and is defined in

terms of one or more simulation signals; and

executing each of the first, second, and third action for performing user-defined

functions.

8. (Original) The method according to claim 7 further comprising:

placing in a data structure a symbol corresponding to an atomic rule associated with the simulation signals;

replacing in the data structure one or more symbols corresponding to atomic rules with a symbol corresponding to a non-atomic rule; and

replacing one or more symbols corresponding to non-atomic rules and one or more symbols corresponding to atomic rules with a symbol corresponding to the transaction rule.

9. (Original) The method according to claim 7 further comprising:

defining another transaction rule to recognize a permutation of the atomic rules as the transaction.

10. (Currently Amended) An article comprising a computer-readable medium that stores computer-executable instructions for causing a computer system to:

generate simulation signals from a design simulation;

apply a transaction rule to recognize a first set of the simulation signals as a transaction; and

apply an atomic rule to recognize a second set of the simulation signals;

apply a non-atomic rule to recognize a first set of atomic rules; and

execute an action associated with the transaction rule.

11. (Original) The article according to claim 10 further including instruction for causing

the computer system to:

successively define the transaction rule with other rules so that the transaction rule

is defined by the simulation signals.

12. (Original) The article according to claim 11 further including instruction for causing

the computer system to:

execute an action associated with each rule to perform user-defined functions.

13. (Currently Amended) The article according to claim 10 further including instruction

for causing the computer system to:

~~apply an atomic rule to recognize a second set of the simulation signals;~~

~~apply a non-atomic rule to recognize a first set of atomic rules; and~~

apply the transaction rule to recognize a second set of atomic rules and a set of

non-atomic rules as the transaction corresponding to the transaction rule.

14. (Previously Amended) The article according to claim 10 further including instruction

for causing the computer system to:

place in a data structure one or more symbol corresponding to an atomic rule

associated with the simulation signals;

replace in the data structure the one or more symbols corresponding to atomic

rules with one or more corresponding to a non-atomic rule; and

replace the one or more symbols corresponding to non-atomic rules and the one or

more symbols corresponding to atomic rules with one or more symbols corresponding to

the transaction rule.

15. (Original) The article according to claim 10 further including instruction for causing

the computer system to:

print information about the transaction as an output.

16. (Previously Amended) An article comprising a computer-readable medium that stores

computer-executable instructions for causing a computer system to:

define a transaction rule, which is associated with a first action, by non-atomic

rules, each of which is associated with a second action and is defined by one or more

atomic rules, wherein each atomic rule is associated with a third action and is defined in

terms of one or more simulation signals; and

execute each of the first, second, and third action to perform user-defined

functions.

17. (Original) The article according to claim 16 further including instruction for causing

the computer system to:

place in a data structure a symbol corresponding to an atomic rule associated with

the simulation signals;

replace in the data structure one or more symbols corresponding to atomic rules

with a symbol corresponding to a non-atomic rule; and

replace one or more symbols corresponding to non-atomic rules and one or more

symbols corresponding to atomic rules with a symbol corresponding to the transaction

rule.

18. (Original) The article according to claim 16 further including instruction for causing

the computer system to:

define another transaction rule to recognize a permutation of the atomic rules as

the transaction.

19. (Currently Amended) An apparatus comprising:

a computerized simulator ~~for generating~~ to generate simulation signals from a

design simulation; and

a processor configured ~~for applying~~ to:

apply a transaction rule to recognize a first set of the simulation signals as a

transaction;

apply an atomic rule to recognize a second set of the simulation signals;

apply a non-atomic rule to recognize a first set of atomic rules; and

~~for executing~~ execute an action associated with the transaction rule to produce an

output identifying the transaction.

20. (Original) The apparatus according to claim 19 wherein the processor is further

configured to:

successively define the transaction rule with other rules so that the transaction rule

is defined by the simulation signals.

21. (Original) The apparatus according to claim 20 wherein the processor is further

configured to:

execute an action associated with each rule to perform user-defined functions.

22. (Currently Amended) The apparatus according to claim 19 wherein the processor is

further configured to:

~~apply an atomic rule to recognize a second set of the simulation signals;~~

~~apply a non-atomic rule to recognize a first set of atomic rules; and~~

apply the transaction rule to recognize a second set of atomic rules and a set of

non-atomic rules as the transaction corresponding to the transaction rule.

23. (Previously Amended) The apparatus according to claim 19 wherein the processor is

further configured to:

place in a data structure one or more symbols corresponding to an atomic rule

associated with the simulation signals;

replace in the data structure the one or more symbols corresponding to atomic

rules with one or more corresponding to a non-atomic rule; and

replace the one or more symbols corresponding to non-atomic rules and the one or

more symbols corresponding to atomic rules with one or more symbols corresponding to

the transaction rule.

24. (Original) The apparatus according to claim 19 wherein the processor is further

configured to:

       print out information about the transaction as an output.

25. (Previously Amended) An apparatus comprising:

       a computerized simulator for generating simulation signals from a design

simulation; and

       a processor configured to:

       define a transaction rule, which is associated with a first action, by non-atomic

rules, each of which is associated with a second action and is defined by one or more

atomic rules;

       wherein each atomic rule is associated with a third action and is defined in terms

of one or more simulation signals; and

       execute each of the first, second, and third action to perform user-defined

functions.

26. (Original) The apparatus according to claim 25 wherein the processor is further

configured to:

       place in a data structure a symbol corresponding to an atomic rule associated with

the simulation signals;

       replace in the data structure one or more symbols corresponding to atomic rules

with a symbol corresponding to a non-atomic rule; and

replace one or more symbols corresponding to non-atomic rules and one or more

symbols corresponding to atomic rules with a symbol corresponding to the transaction

rule.

27. (Original) The apparatus according to claim 25 wherein the processor is further

configured to:

define another transaction rule to recognize a permutation of the atomic rules as

the transaction.